

**PERPENDICULAR READ/WRITE HEAD FOR USE IN A DISC
DRIVE STORAGE SYSTEM**

ABSTRACT OF THE DISCLOSURE

- 5 A read/write head for use in a disc drive storage system includes perpendicular writing and reading elements. The perpendicular writing element includes a main pole, a return pole, a write gap, and a conductive coil. The return pole is located downstream of the main pole relative to a rotating disc and is connected to the main pole at a back gap.
- 10 The write gap and the conductive coil are positioned between the main and return poles. The conductive coil is adapted to induce magnetic flux in the main and return poles. The reading element can be positioned upstream or downstream of the perpendicular writing element and includes top and bottom shields and a read sensor positioned
- 15 therebetween.

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